BIODEGRADABLE TRIBLOCK COPOLYMERS, SYNTHESIS METHODS THEREFORE, AND HYDROGELS AND BIOMATERIALS MADE THERE FROM

Abstract of the Disclosure

A drug delivery system that includes a hydrogel formed from cyclodextrin and an amphiphilic copolymer that includes an A polymer block comprising a poly(alkylene oxide) and a B polymer block comprising a poly(hydroxyalkanoate), and a therapeutically effective amount of at least one therapeutic agent intimately contained within the hydrogel. In one preferred embodiment of the invention, the A polymer block is poly(ethylene oxide) (PEO) and the B polymer block is poly[(R)-3-hydroxybutyrate] (PHB), and the copolymer is the triblock ABA copolymer PEO-PHB-PEO. A method of synthesizing the amphiphilic triblock copolymer is also provided.

15

10

5